Quibim

Successfully implementing Smart Reading QP-Prostate®

Installation Guide of QP-Link® On-Premise

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1. Introduction

Welcome to the QP-Link® On-Premise Installation and Configuration Guide:

This Guide is intended to support the successful installation of **QP-Link® On-Premise,** which is the Quibim's DICOM node that will run on the End-User's premises within a server provided by the End-User. The node will accept communication from the Philips console via DIMSE and a set of HTTP endpoints. DICOM files will be sent from the Philips Console to QP-Link® On-Premise, and subsequently forwarded to the Quibim Cloud-based analysis platform, QP-Care, where the Smart Reading QP-Prostate® software is hosted.

This document provides a step-by-step guide for installing and configuring **QP-Link® On-Premise application**. It includes an overview of the solution architecture, detailed installation instructions, and a list of all required information for full integration between Philips MRI and Smart Reading QP-Prostate® software.

This guide is designed to be followed by the Philips's Field Service Engineer responsible for setting up and configuring the environment, ensuring smooth and efficient Smart Reading QP-Prostate® software activation.

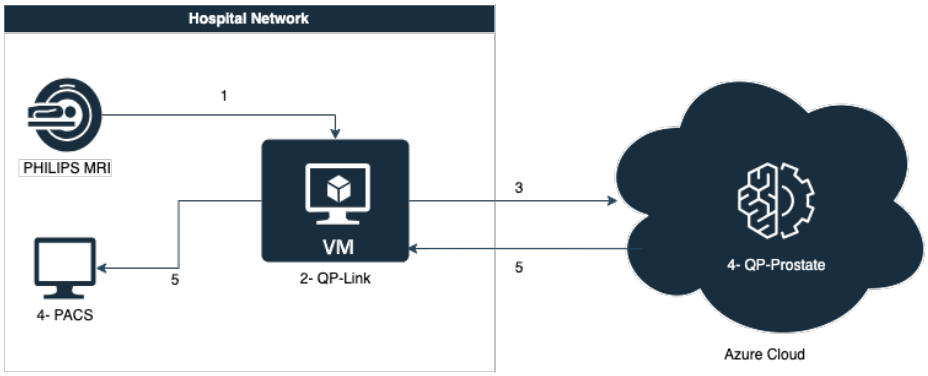
In addition, this document includes two annexes:

- Annex I outlines the hardware and network communication requirements needed to install QP-Link® On-Premise.
- Annex II lists all the information that must be collected from the End-User to complete the post-installation configuration of QP-Link® On-Premise. This information will be forwarded to Quibim support team.

2. System Architecture.

QP-Link® On-Premise is a local application that securely connects the hospital's imaging systems with Quibim Cloud platform (**QP-Care**), where advanced analysis called **Smart Reading QP-Prostate®** is performed. It is installed on a virtual or physical machine provided by the End-User, and handles the full data exchange automatically, with no need for manual intervention once configured.

How It Works



1. **Image Acquisition**
   Prostate MRI studies are acquired as usual and sent automatically from the Philips MRI scanner to the QP-Link® On-Premise system.
2. **Data Preparation**
   QP-Link® On-Premise pseudo-anonymizes and sends DICOM files to Quibim Cloud.
3. **Secure Transfer to the Cloud**
   The pseudo-anonymised data is safety uploaded and transmitted to Quibim Cloud platform using SSL/HTTPS protocols.
4. **Automated Analysis**
   Once the study reaches the Quibim Cloud, it is automated processed by the **Smart Reading QP-Prostate® software**.
5. **Results Delivery**
   When the analysis is completed, QP-Link® On-Premise automatically downloads the results and sends them back to the hospital PACS, so that they are available alongside the original images.

Key Points

QP-Link® On-Premise:

- Pseudo-anonymizes and sends DICOM files to Quibim cloud.
- Retrieves DICOM results and re-identifies patient data.
- Works automatically in the background once installed and configured.

3. QP-Link® On-Premise pre-requisites

Step 1: Contact Quibim Support team

To proceed with the installation of QP-Link® On-Premise, please contact the Quibim Support team before initiating any setup process.

Send an email to **support@quibim.com** with the following subject line:

"New QP-Link® On-Premise Installation – Philips – [Name of the Centre]-[SN]"
In your email, please include the following information:

- Name of the site where QP-Link® On-Premise will be installed.
- SN as specified in the Welcome Letter (WOXXXX-XXXX).
- Region where the Centre is located.
- Full name of the Field Service Engineer who will perform the installation.
- Planned installation date.

⚠**Important:**
This step is required to receive the credentials needed to access the QP-Link® Installer Portal and to receive detailed instructions for installing and configuring the DICOM Node.

Step 2: Setting up the VM

In addition to the previous steps, the End-User must provide a **dedicated** server or virtual machine where QP-Link® On-Premise will be installed.

Before proceeding with the installation, it is also necessary to ensure that all required network **connections are open**, allowing communication with the cloud environment.

You can find the full technical specifications and requirements for the virtual machine in Annex I: Virtual Machine.

Please do not attempt to install QP-Link® On-Premise before these two steps have been completed.

4. QP-Link® On-Premise Installation

This section describes the step-by-step process to install QP-Link® On-Premise on the virtual machine provided by the End-User.

⚠**Note:**
To complete this step, it is required that the network communications described in **Annex I – Virtual Machine** have already been opened

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Step 1 – Access the QP-Link Installer Portal

- 🌍 **Europe:** https://qpcne.apps.quibim.com

Step 2 – Access Configuration Section

Log into the portal and navigate to the section:
Configuration > **QP-Link** in the left-hand menu.

Step 3 – Generate Installer

Inside the **QP-Link** section, click **Install New QP-Link**.
This will trigger the generation of a customized installer. After a few moments, a notification will appear in the top-right corner confirming that the process has started.
The installer generation process takes approximately **20–25 minutes**. Once completed, you will receive another notification with a download link.
Click on the hyperlink **within the notification** to download the QP-Link installer.

Step 4 – Run the Installer

After downloading, run the installer as Administrator.
During the setup:

- Select **Run as a Service.**
- Accept the default installation path.
- Click Next until the installation is complete.

Step 5 – Proxy Configuration (if applicable)

If your environment uses a proxy to access the internet, it must be manually configured in QP-Link after installation.

To do so, follow these steps:

1. **Stop the service** named **QP-Link On Premise** from the **Windows Services** menu (services.msc).Navigate to the QP-Link installation directory:
   C:\Program Files (x86)\QP-Link (default path)
2. Locate the file named:
   qp-link-onpremise-XXX-service.xml
3. Right-click the file and open it with **Notepad**.
4. Look for the section containing the <arguments> tag.
5. Replace or add the following line, inserting your proxy details:

   <arguments>-Dhttps.proxyHost=XXX -Dhttps.proxyPort=XX -javaagent:"applicationinsights-agent.jar" -jar "%BASE%\qp-link-1.4.1.jar"</arguments>Replace XXX with your proxy hostname and XX with your proxy port.

6. Save the file and restart the QP-Link service.

Step 6 – Continue with Initial Configuration

Once QP-Link® On-Premise is installed, proceed to the next step: Configuration post-installation.

5. Configuration post-installation

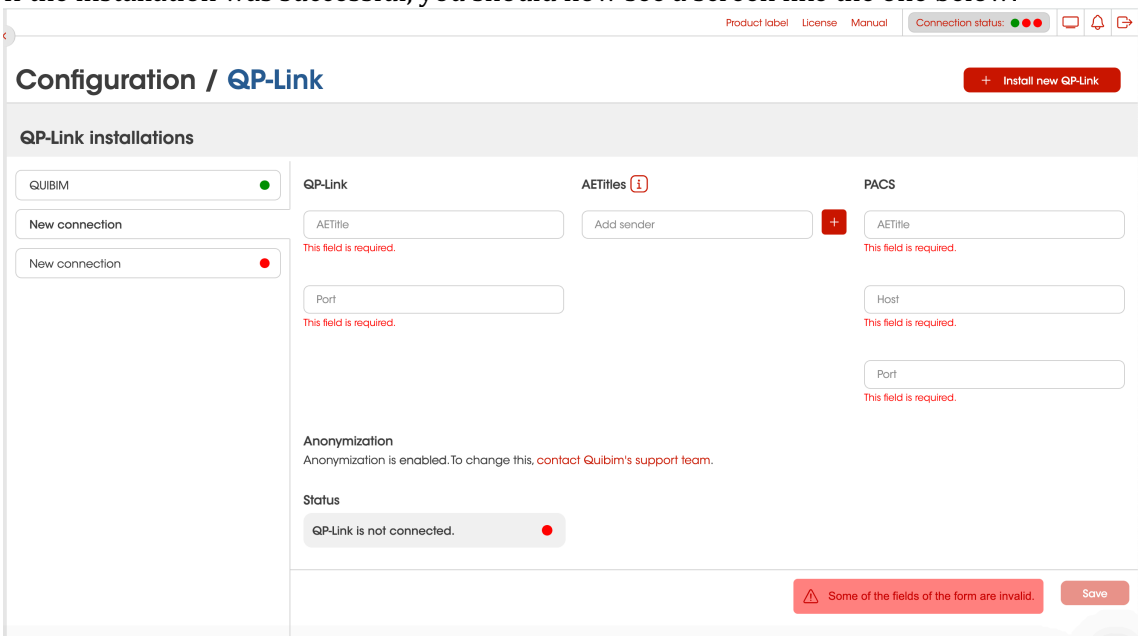
Before proceeding with this step, please ensure that **all the required information listed in Annex II** has been collected and sent to the **Quibim Support Team**, using the same email thread initiated for the installation.

The subject should be:
"New QP-Link Installation – Philips – [Name of the Centre] -[SN]"

Step 1 – Access the Configuration Interface

Return to the QP-Link Installation Portal by visiting:
https://qpcne.apps.quibim.com
Log in and navigate to:
Configuration > QP-Link on the left-hand menu.

If the installation was successful, you should now see a screen like the one below:



Step 2 – Fill in the Configuration Fields according to Annex II information.

The interface is divided into three columns:

- Left Column – QP-Link Node Configuration
  - This corresponds to the QP-Link listener.
  - By default:
    - **AET**: QUIBIM
    - **Port**: 22223
- Middle Column – Incoming DICOM Nodes
  - Add the AETs of the DICOM nodes (e.g. MR, PACS) that will send studies to QP-Link.
  - Click the **"+"** icon to add each one.
- Right Column – PACS Destination for Results
  - Enter the **AET**, **IP address**, and **Port** of the PACS where results should be returned.
  - Click **Save** to apply the settings.

Step 3 – Confirm Connection

After 2–5 minutes, if the configuration is correct, a **green status light** should appear in the top menu bar, indicating that the communication between QP-Link® On-Premise and the PACS is working correctly.

⚠ If the status does not turn green or if any issues occur, please contact the **Quibim Support Team**. A remote session will be arranged to review and resolve the issue.

Step 4 – Quibim Confirmation Required

Once the initial configuration described above has been completed, the **Quibim Support Team must confirm that the setup is fully operational**.

Please wait for a confirmation reply in the existing email thread, indicating that:

- The data flow is working correctly
- The T2 and DWI sequence names provided in **Annex II** have been properly mapped into the system

⚠ It is important **not to proceed further until this confirmation has been received**, as it ensures that the processing pipeline is ready to accept real cases.

Step 5 – Send a Test Case

After receiving Quibim's confirmation, send a test study from the VM (using the configured node) to QP-Link® On-Premise.

- The case should appear in the **"Cases"** section of the Quibim platform within ~10 minutes.
- You should see its status as one of the following:
  Not-Started, **Processing**, **Finished**, or **Failed**.

Step 6 – Monitor the Analysis and Verify Results

Wait for the test study to complete processing.

- Once the status changes to **Finished**, check your **PACS** system to confirm that the result series have been received and stored correctly.
- The entire process (from sending to result delivery) may take approximately **30–40 minutes**.

Step 7 – Finalization

If the test case has been successfully analysed and results appear in PACS, the QP-Link® On-Premise installation can be considered **complete**.

At this point:

- You may begin sending real clinical cases for analysis.
- Optionally, you can set up an **automatic routing rule** in your MRI scanner to send new cases directly to the **QUIBIM node** configured in Step 2.

6. Quibim Support Contact

In case of any issue during or after the installation and configuration of QP-Link® On-Premise, you must contact the Quibim Support Team.

Email: support@quibim.com

Phone: +34 628 319 540 (Installation Specialist)

Please do so by replying to the existing email thread that was used to initiate the installation process.

The subject should be:
"New QP-Link® On-Premise Installation – Philips – [Name of the Centre] -[SN]"

Include the following information in your message:

- Full name of the person requesting support.
- Description of the issue or reason for the support request.
- Time availability for a remote session or phone call to jointly review and resolve the problem.

This will allow the support team to prioritize your request and help as quickly as possible.

ANNEX I: Virtual Machine Requirements for QP-Link® On-Premise Installation

Minimum Hardware Requirements
- Operating System: Windows 10 (64-bit) or Windows Server (2016 or newer)
- Processor: Intel Core i3 or equivalent (64-bit architecture)
- RAM: Minimum 8 GB
- Storage: Minimum 250 GB available disk space
- Network: Static IP or DHCP reservation

Network and Connectivity Requirements
The following outbound connections must be allowed from the VM where QP-Link® On-Premise is installed:

Purpose	Destination	Port	Protocol
Send data to QP-Care (Cloud)	20.223.211.140 (Quibim Cloud)	443	HTTPS
Authentication services	https://login.microsof-tonline.com/ac1b48cf-ffda-4abf-8176-8d5f00c1a643/oauth2/v2.0/to-ken	443	HTTPS
Portal access for installer and updates	https://qpcne.apps.quibim.com	443	HTTPS
Receive studies from PACS	Local network (from PACS to QP-Link® On-Premise)	22223	TCP (DICOM C-STORE)
Send results to PACS	PACS IP (defined by End-User)	[TBD]	TCP (DICOM C-STORE)

⚠ **It is essential to ensure that the two URLs below are fully accessible:**
- https://qpcne.apps.quibim.com
- https://login.microsoftonline.com/ac1b48cf-ffda-4abf-8176-8d5f00c1a643/oauth2/v2.0/token

Proxy Settings (if applicable)
If outbound traffic is routed through a proxy server, please provide the following information:
- Proxy hostname:
- Proxy port:
- Does the proxy require authentication? (Y/N)
- If yes, authentication method and credentials should be coordinated securely with Quibim support.

Annex II: End-User Information Required for QP Link® On-Premise Configuration

The following information must be collected from the End-User and sent to the Quibim Support Team to complete the post-installation configuration of QP-Link® On-Premise. This information is critical to ensure proper data routing, result delivery, and compatibility with the analysis platform.

Please make sure all applicable fields are completed and submitted before proceeding.

🔷 1. General Site Information

- Full name of the medical centre / hospital
- Short site name or abbreviation
- Address of the institution
- Planned installation date
- Name and contact details of the person responsible for installation

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🔷 2. MRI Systems to Be Used

For each MRI scanner involved in the project:

- Manufacturer (PHILIPS) and model
- Magnetic field strength (e.g., 1.5T, 3T)
- AET (Application Entity Title)
- IP address
- Site/location where the scanner is installed
- Series descriptions (as they appear in DICOM) that will be used for analysis (T2 Axial and Multi-b DWI). This information will need to be forwarded to Quibim to finish the installation.

🔷 3. Study Source and Workflow

- Will the transfer be automatic (routing rule) or manual (push)?
- Which SOP Classes can the PACS receive for analysis results? (By default, Quibim can send: MR Image Storage, Structured Report, Segmentation, PDF, etc.)

4. PACS Configuration Details

- PACS system and version
- AET, IP address, and port used by MR to send studies to QP-Link® On-Premise.
- AET, IP address, and port from PACS used to receive results from QP-Link® On-Premise.
- Confirmation of DICOM node created in PACS for QP-Link® On-Premise. By default:
    - AET: QUIBIM
    - IP ADDRESS: The one from the VM
    - PORT: 22223
- Worklist or rule created in PACS to automatically send studies to QP-Link® On-Premise (if applicable).

5. Sending information to Quibim team.

Once all this information has been collected, please send it to the Quibim Support Team using the same email thread where the installation process was initiated.
Use the following subject line:
"New QP-Link® On-Premise Installation – Philips – [Name of the Centre] -[SN]"

This ensures proper tracking and association of the configuration data with the corresponding installation.

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